

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015975**Date Inspected:** 02-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 9AE

This QA Inspector verified and checked the snug tightening for the bolts installed at Corner Assembly at cross truss post and vertical truss post on random basis along with ZPMC QC Mr. Zhang Hai Jung for Segment 9AE at the Cross Beam and Bike Path side at Panel Points (PP) 72 and PP 73. The QA Inspector observed the results appeared to be in general compliance.

The bolt sizes used were M22 x 85, M22 x 55, M24 x 60, M24 x 65 and M24 x 80. Please reference the pictures attached for more comprehensive details.

Segment 9BE

This QA Inspector verified and checked the snug tightening for the bolts installed at Corner Assembly at cross truss post and vertical truss post on random basis along with ZPMC QC Mr. Zhang Hai Jung for Segment 9BE at

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the Cross Beam and Bike Path side at Panel Points (PP) 74, PP 75 and PP 76. The QA Inspector observed the results appeared to be in general compliance.

The bolt sizes used were M22 x 85, M22 x 55, M24 x 60, M24 x 65 and M24 x 80. Please reference the pictures attached for more comprehensive details.

### Traveler Rail Bracket

This QA Inspector observed the in process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6B-PP72-004. The welder identification was 204342 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket.

### Segment 9CW to Segment 9DW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9C-003. The welder identification was 067765, 066038 and 067642 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel, transverse splice weld. Please reference the pictures attached for more comprehensive details.

### Traveler Rail Bracket

This QA Inspector observed the in process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6B-PP77-004. The welder identification was 222369 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket.

### Segment 9CE to Segment 9DE

This QA Inspector observed the in process fillet weld repair welding by Flux Cored Arc Welding (FCAW) process. The Weld joint was designated as DP711A-001-011/012. The welder identification was 067765 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1. The piece mark was identified as Deck Panel, I-Rib hold back area.

### Traveler Rail Bracket

This QA Inspector observed the in process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6B-PP78-004. The welder identification was 222369 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket. Please reference the pictures attached for more comprehensive details.

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### Segment 9DW to Segment 9EW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW9C-006. The welder identification was 067609 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1. The piece mark was identified as the Edge Panel, Counter Weight side.

### Traveler Rail Bracket

This QA Inspector observed the in process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6B-PP74-004. The welder identification was 220069 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket.

### Traveler Rail Bracket

This QA Inspector observed the in process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as TR6B-PP73-004 and TR6B-PP79-004. The welder identification was 220069 and was observed welding in the 1G (Flat) and 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2231-Tc-U4C-F and WPS-B-T-2231-Tc-U4C-F. The piece mark was identified as the Traveler Rail Bracket.

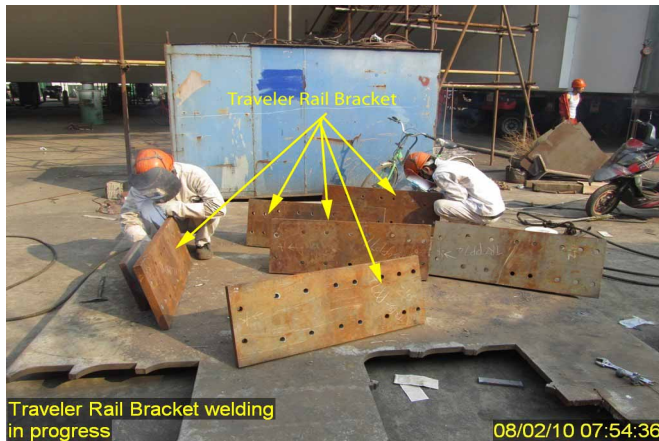
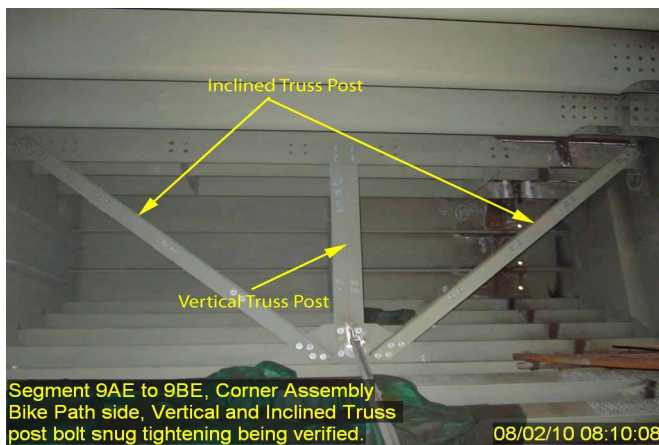
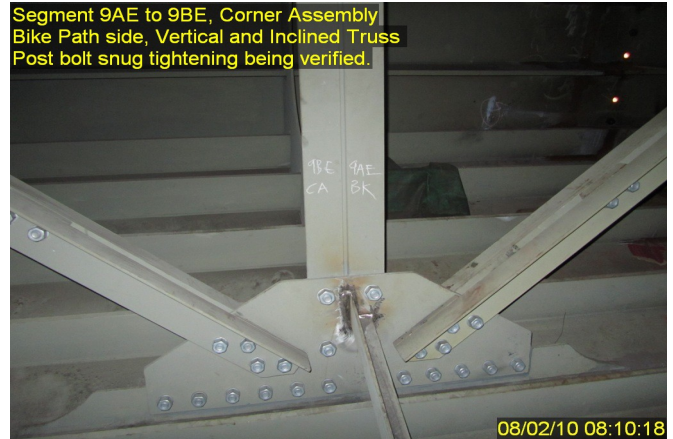
### Segment 9CW to Segment 9DW

This QA Inspector observed the in process fillet welding operation by the Flux Cored Arc Welding (FCAW) process. The Weld joint was designated as SP732-001-11, SP732-001-12, SP732-001-13, SP732-001-14, SP732-001-15 and SP732-001-16. The welder identification was 040704 and was observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132. The piece mark was identified as the Side Panel T-Ribs, Cross Beam side.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

No relevant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Math,Manjunath

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer